## Apostle Islands National Lakeshore Ice Caves FAQ's (frequently asked questions) Updated 12-18-15

## What is the likelihood that the Ice Caves will be accessible this winter?

This is a year of a strong El Nino. We have seen much warmer than average temperatures this fall/early winter and NOAA predicts this trend to continue into early 2016. This doesn't mean that the Ice Caves won't be accessible this winter, but it's less likely than the last two years.

#### What are the Ice Caves?

There are intricately carved sea caves in cliffs along the Mainland Unit of Apostle Islands National Lakeshore. As ice was forming on Lake Superior, waves splashing against the rock began to freeze on the sandstone cliff. In addition, water seeping between sandstone rock layers froze to form a variety of features similar to limestone caves. There are large icicles and formations hanging off of the cliffs, curtains and columns of ice, and abundant ice crystals.

#### Is the ice safe?

Ice is never considered completely safe. Ice conditions can change rapidly, so keep safety in mind at all times. Temperature, high wind speeds and direction can quickly change ice conditions. Images of the ice can usually be found on the Sea Caves Watch website (<a href="http://wavesatseacaves.cee.wisc.edu/index.htm">http://wavesatseacaves.cee.wisc.edu/index.htm</a>) and satellite imagery of ice cover on Lake Superior can be found at: <a href="http://coastwatch.glerl.noaa.gov/modis/modis.php?region=s&page=1">http://coastwatch.glerl.noaa.gov/modis/modis.php?region=s&page=1</a>. For the latest information, call the Apostle Islands Ice Line at 715-779-3397 ext. 3.

## How long will the ice caves be accessible?

It is hard to predict. This all depends on the weather. For the latest information, call the Apostle Islands Ice Line at 715-779-3397 ext. 3.

#### Does the Meyers Beach parking lot close in the evening?

No. However, travel to the ice caves in the dark is not recommended.

## Is there a fee for visiting the ice caves?

Yes. During the Ice Cave Event, there is a \$5/person/day fee for those 16 and older for those visiting the caves, regardless of access point or method. The fee is waived for children under the age of 16. The fee can be paid at the Meyers Beach parking lot, at the end of Mawikwe Road, and at Park Headquarters. Please bring cash. There is also an annual pass available for \$10/person. The \$10 pass is only available at Park Headquarters in Bayfield (415 Washington Ave.) during the Ice Cave Event. There are no other discounts for this special recreation permit fee. Holders of the Interagency Annual, Access, or Senior passes must still pay the full amount. Outside of the Ice Cave Event, there is a \$3/car parking fee at Meyer Beach – this fee is waived during the Ice Cave Event.

## Where can I find additional information? Is the Visitor Center Open?

Up-to-date information can be found on the park's Facebook page: <a href="https://www.facebook.com/apostleislandsnationallakeshore">https://www.facebook.com/apostleislandsnationallakeshore</a>

Additional information can also be found on the Apostle Islands NL (<a href="http://www.nps.gov/apis/mainland-caves-winter.htm">http://www.nps.gov/apis/mainland-caves-winter.htm</a>), Bayfield Chamber of Commerce (<a href="http://www.bayfield.org">www.bayfield.org</a>), Bayfield County Tourism (<a href="http://www.icecaves.org">www.icecaves.org</a>), and Cornucopia (<a href="http://www.cornucopiawisconsin.net">www.cornucopiawisconsin.net</a>) websites.

The Apostle Islands Visitor Center in Bayfield (415 Washington Ave.) will be open every day 8:00 am – 4:30 pm while the ice caves are open.

## **Planning Your Visit:**

## When should I visit?

If possible, come during the week – and carpool or take a shuttle (info. on page 3). The weekends, especially Saturdays, can be extremely busy – cars may be parked more than 2 miles in either direction from Meyers Road, greatly increasing the round-trip distance to the caves. Keep in mind the sun sets early this time of year and you should give yourself 2-3 hours to get out to and enjoy the caves. This time is from the parking lot. Add additional time if you take a shuttle or need to park along Meyers Road or Highway 13.

If you are a photographer, the most dramatic lighting occurs late in the afternoon on sunny days. The setting sun highlights the colors of the rock and ice. Darkness descends quickly after the sun sets, so allow time to get back to your car while it is still light.

#### Where are the ice caves?

The ice caves are located at the western end of the Mainland Unit of Apostle Islands National Lakeshore in far northern Bayfield County in northwestern Wisconsin. There is a parking area and stairs to the beach/ice at the end of Meyers Road. The turn-off for Meyers Road is 18 miles west of Bayfield and 4 miles east of Cornucopia along Highway 13. The GPS address is: 90500 Meyers Road. The cliffs with the ice caves begin about one mile northeast of the stairs



at the end of Meyers Road and extend for about two miles along the shoreline.

## How far is it to the caves?

From the Meyers Beach parking area, the round-trip distance is 2.5 to 6 miles, depending on how far you walk along the caves. 3.5 miles is typical. Keep in mind that if you need to park along Meyers Road (which is 0.4 miles long) or along Highway 13, your distance will be greater. For example, if you are one mile down Highway 13 from Meyers Rd., that would increase your round-trip distance by nearly 3 miles compared to parking in the Meyers Beach parking area.

## Where can I park?

Parking is available within the parking lot at the end of Meyers Road, along the west side of Meyers Road, and along the north side of Highway 13. There are also shuttle pick-up and drop-off area (see below).

NOTE: Mawikwe Road has been closed to parking by local governments because it is very narrow and doesn't allow for two way traffic if cars are parked along the road, however, visitors can walk down Mawikwe Road to access the ice. It is approximately 1.5 miles from Highway 13 to the ice along Mawikwe Road and an additional ½ mile to the ice caves. From the junction of Highway 13 and Meyers Road, it is approximately 0.4 miles to the stairs and ice access and an additional mile to the ice caves.

#### Is there a shuttle service available?

Yes. Once the caves are accessible, shuttles will drop off passengers at the junction of Meyer's Road and Highway 13. There is a 0.4 mile walk from that location to the parking area stairs. The shuttles can be taken from Cornucopia's community center. No pets will be allowed on the buses.

## How should I prepare for a visit to the caves?

Make sure to bundle up and dress in layers. Take something that will allow you to cover your face – a neck gaiter, balaclava, or scarf. Bring water and a snack. Pay attention to wind chill factor (temperature and wind combined-see below). The caves are very exposed to wind, especially from the west. Spiked footwear, such as Stabilicers or Yaktrax, is highly recommended. The entire area tends to be very slippery. You may encounter slush or wet areas. Wear waterproof boots with non-skid soles and cleats. Tennis shoes are not recommended.

## Should/or can I bring snowshoes or skis?

You can bring snowshoes or skis, however, it's too early to predict whether it will be easier to walk, snowshoe or hike to the caves. Walking with spiked footwear is always recommended.



	Temperature (°F)																		
	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
(He	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
Wind (mph)	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
2	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
<u>.</u>	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98
Frostbite Times 30 minutes 10 minutes 5 minutes																			
Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V <sup>0.16</sup> ) + 0.4275T(V <sup>0.16</sup> )  Where, T= Air Temperature (°F) V= Wind Speed (mph)  Effective 11/01/01																			

#### Are there areas where I need to be more cautious?

- The entire area tends to be very slippery. Spiked footwear, such as Stabilicers or Yaktrax, is highly recommended.
- There are large icicles and frozen waterfalls suspended from the top of the cliffs. Do NOT stand directly under them. They might break off and come crashing down at the most inopportune moment.
- Do not crawl into small openings; the lake level can shift without warning, making it difficult to get out.
- On windy days, water may ooze through cracks between the cliff base and the lake ice.
   If the wind is blowing and you feel the ice on the lake rising and falling, get off the lake and return to the beach.
- The steps to the beach at the end of Meyers Road can be very slippery, even though the park staff work to keep them cleared of snow and sanded. We recommend using the handrail and extra caution on the steps.
- There are several small streams and springs that flow into Lake Superior. Be cautious near these as running water can undercut the ice leaving it much thinner than the surrounding ice and very hard to detect.
- Several of the features, such as the Crevasse, may have running water from small waterfalls. Take care to avoid any areas where you can hear running water as moving water can quickly degrade the ice.

## Do you have age restrictions (recommendations) – young and old?

No, but all have to be able to endure the distance and conditions.

#### Any advice for bringing children?

- Pick a day with more moderate temperatures (20s or more) and no wind. Under cold conditions, especially when there's wind, frostbite can occur on exposed skin within minutes, especially with children. Be sure they are bundled up so they don't get cold.
- Consider bringing a sled so you can pull the children when they get tired.
- They may get wet, consider bringing extra clothes.
- Kids love playing on the ice, but parents need to keep things under control (don't climb on ice, crawl in small spaces, break off formations, stand under big chunks of ice, etc.).
- Keep a close eye on your children some caves begin in one location and end in another. It is easy for parents and children to get separated.
- Many children were injured last year when they climbed up (or were helped up) on ice
  features for the perfect photo opportunity, but slipped on their way down. Please avoid
  helping your children onto the ice features or discourage your kids from climbing on
  them.

## Do cell phones work in the area of the ice caves?

Cell phone reception tends to be very poor in the Meyers Beach area.

#### Are there toilet facilities?

Yes, but only in the Meyers Beach parking lot. The toilet facilities are limited and there may be long lines. There are no toilets at the caves.

## Are there garbage cans?

Yes - in the Meyers Beach parking lot and at the Mawikwe Road/Highway 13 intersection. Please carry out all trash and dispose of it properly – be considerate of others and do not leave trash in the caves.

## Is there a place to change clothes at Meyers Beach?

Unfortunately, no.

# Is there a place to stay warm/out of the weather at Meyers to wait for my friends on the ice? No. There is a small shelter, but it is open on three sides.

## Is food or drinking water available at Meyers Beach?

No. The closest source of food and water is four miles away in Cornucopia.

#### Do I need to sign up for a tour?

No. Tours are not available.

## Is it safe for a person to go out to the caves alone?

The ice is never considered completely safe. If you choose to go out alone, it is recommended that you go when other visitors are present and let others know your plans.

## Are there going to be rangers out on the ice?

Rangers are not on the ice on any schedule, although they may be out there with school groups, the media, or to take care of serious injuries. The parking area will be staffed on a daily basis to manage the crowds.

## **Can I? Park Regulations:**

#### Can I bring my dog?

Yes, but it is not recommended. Dogs must be kept on a leash (6' or less) at all times and cleaned up after (doggie doo bags are available near the stairs). And please be considerate of other visitors – keep your dog under control, clean up after them, and carry out your doggie doo bags - do not leave them in the caves. Keep in mind that pets are not allowed on the Shuttle.

## Can I bring sled dogs?

Yes. Personal sled dogs trips can be made to the caves. Commercial sled dog trips are not allowed. The same rules as regular dogs apply – clean up after your dogs. And please be considerate of other visitors. Keep in mind that there is no place to access the lake near Meyers Beach with a sled dog team.

#### Can I use a snowmobile, ATV or UTV?

Snowmobiles, ATVs, and UTVs may NOT be operated near the mainland sea caves or anyplace along the mainland ice from Saxine Creek to Sand Point between the shore and the park boundary ¼ mile out into the lake. This is to protect the safety and enjoyment of the thousands of visitors walking in this area. Snowmobiles, ATVs, and UTVs may be operated on the frozen surface of Lake Superior surrounding the islands and from Sand Point to the mainland unit's east boundary within the park for the purpose of ice fishing, hunting, trapping and access to non-motorized activity (e.g., hiking, camping). Snowmobiles are not permitted on the islands or off-road on the Mainland Unit.

#### Can I use a drone?

No. The use of drones is prohibited in all National Park areas, including the Ice Caves and the Meyers Beach area, which are within Apostle Islands National Lakeshore. Keep in mind that the park boundary extends onto Lake Superior ¼ mile from the shoreline.

## Can I ride my bike to the caves?

No. Bicycles are not permitted off-road or on trails within the park, including the frozen surface of Lake Superior. They are permitted on roads.

#### Can I ride a horse to the caves?

No. Horses are not permitted on the frozen surface of Lake Superior within the boundaries of the Park.

## Can I camp near the ice caves?

Yes, with a camping reservation. There is a single campsite in the park's Mainland Unit. The campsite is a 4.5 mile hike along the snow-covered Mainland Trail from the trailhead at the Meyers Beach parking lot. The trail leading to the overlooks of the ice caves is usually snowpacked and slippery. Boardwalked sections are narrow with steps that may be difficult to traverse on snowshoes. The section of the trail beyond the overlook point is lightly used, may have deep snow, and may be difficult to follow. You can call 715-779-3398, ext. 1 to make a reservation. Office hours are Monday-Friday, 8:00 am – 4:30 pm.

#### Can I ice climb?

No. Climbing, scrambling or rappelling on the cliffs or ice formations is not permitted along the mainland sea caves. The delicate nature of these formations makes them highly susceptible to damage. Also, at any given time there may be hundreds of people at the base of the cliffs. If ice or rock were to give way and fall on someone it could cause serious injury.

#### **ISLANDS**:

#### What islands have sea caves?

The Mainland, Sand Island and Devils Island have the most sculpted caves. Sand and Devils islands are not accessible over ice this year. The only location that is checked for ice conditions is along the Mainland sea caves.

#### Can I ski/snowshoe/dogsled to see sea caves on the islands?

Yes, you can ski, snowshoe or dogsled on your own, but it is at your own risk. The ice thickness is only tested near the Mainland Ice Caves.

#### Can I winter camp in the park?

Yes, with a camping reservation (\$). You can call 715-779-3398, ext. 1 to make a reservation. Office hours are Monday-Friday, 8:00 am - 4:30 pm.

## **GENERAL INFO:**

#### How often are the ice caves accessible?

In 2014, they were accessible for the first time since 2009. Between 2003-2009, they were accessible for at least a short period of time each year except for 2006.

## How unusual was the visitation in 2015 compared to other years?

The visitation in 2015 was 38,000 over a nine day period. In 2014, the visitation was 138,000, but the season was much longer, nearly 2 months. In 2009, the season length was similar to

2014, but the visitation was only 8,400 and in 2012, a year without accessible ice caves, visitation for January and February was 3,400.

#### What is the latest date that the ice caves have been accessible?

In the mid-2000's (approx. 2005) the caves were not accessible until March and people were still walking out to the caves that first week in April.

## What is the longest season that the ice caves have been accessible?

2014 and 2009 probably tie for the longest seasons (approx. 8 weeks).

#### Why is some of the ice at the sea caves blue?

Ice only appears blue when it is sufficiently consolidated that bubbles do not interfere with the passage of light. Without the scattering effect of air bubbles, light can penetrate ice undisturbed. In ice, the absorption of light at the red end of the spectrum is six times greater than at the blue end. Six feet into the ice, most of the light in the red spectrum can't be seen. A lack of reflected red wavelengths produces the color blue in the human eye.

## Why is some of the ice at the sea caves pink?

The cliffs at the mainland sea caves are formed from Devils Island sandstone. The sand grains in this rock are weakly cemented and easily eroded by wind, ice, and waves. That is how the caves form, but when the reddish sand grains slough off the rock and become imbedded in the ice, the ice acquires pinkish appearance.

#### **PARTNERS:**

## Are others helping with the ice cave operation?

YES – It takes many people and organizations to make the ice cave season a success.